

Work Order ID 69556-1

Thursday, May 12, 2011 8:25:04 AM

Page 1

Item ID: D3290-3

Accept

Setup Start

Revision ID:

Stop

Item Name: Window

Start Date: 5/12/2011 Start Qty: 16.00

Required Date: 5/17/2011 Req'd Qty: 16.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3290

Rev C

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3290  
Deburr if necessary

Dwg Rev. C

Prog Rev. C

2-

181-5-12

18

110

QC2- Inspect parts off machine FA/FAIB

0.00



QC

Memo

0.00

Quality Control

181-5-12

120

QC3- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

181-5-12

18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 69556

Thursday, May 12, 2011 8:25:04 AM



Page 2

Item ID: D3290-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Window

Start Date: 5/12/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 5/17/2011 Req'd Qty: 16.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

x18.

SL  
11/05/13

Thermoforming Machine

Without removing protective skin - remove sharp edge by degurring.

140

0.00



THERMOFORMING MACHINE

Thermoform

Memo

0.00

x17 x1

SL  
11/05/13  
PTO →

Thermoforming Machine

1-THERMOFORM as per Drawing D3290 and Folio FTA001 Dwg  
Rev C Folio Rev B 12-Engrave part# &  
batch# (D3290-3)

150

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

x17.

SL  
11/05/13

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3290 - 3 PAR #: N/A Fault Category: Thermoforming NCR: Yes No DQA: 12 Date: 11/05/17  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 11/05/18

NCR: <u>69556-1</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>11/05/13</u>	<u>140</u>	<u>Too Much Heat, cote pattern transferred to part.</u>	<u>11/05/13</u> <u>Q51042</u>	<u>Scrap 1 part</u>	<u>11/05/13</u>	<u>11/05/13</u>	<u>11/05/13</u> <u>Q51042</u>	<u>11/05/13</u>
		<u>RC: Pers Move - LOA (employee took a call)</u>						

NOTE: Date & initial all entries

# Work Order ID 69556

Thursday, May 12, 2011 8:25:04 AM



Page 3

Item ID: D3290-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Window

Start Date: 5/12/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 5/17/2011 Req'd Qty: 16.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Water sand and buff to remove scratches if required

x17.

11/05/13

180

QCS- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/16/13

47

190

Identify as per dwg & Stock Location

0.00



Packaging

Memo

0.00

Packaging

Took 3 - for w/o 68962

11/05/13



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 69556**

Thursday, May 12, 2011 8:25:04 AM

Page 4

Item ID: D3290-3

Accept

Revision ID:

Item Name: Window

Start Date: 5/12/2011 Start Qty: 16.00

Required Date: 5/17/2011 Req'd Qty: 16.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

200

QC21 - Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control



Setup Start

Stop

Cust Item ID:

Customer:



11/5/16

MF  
11-05-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



# Picklist Print

Thursday, May 12, 2011 8:25:01 AM

Page 1

Work Order ID: 69556

Parent Item: D3290-3

Parent Item Name: Window



Start Date: 5/12/2011

Required Date: 5/17/2011

Start Qty: 16.00

Required Qty: 16.00

## Comments:

IPP A 04.08.18 New issue KJ/RF  
 IPP B 06.05.09 Ecn 798 EC IPP Rev.  
 C Removed QC8 Step 160 11/04/11 DL  
 IPP C 07.05.29 Thermoform in-house DL  
 IPP D 07.09.28 rev C dwg EC verified by: DD  
 IPP E 07.11.28 Add --Hand finish deburring DI

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.125 		Purchased	No			100	sl	352.9934	3	50.52632	64.		
1/8" Polycast II Sheet											1811-5-12		

## Location

## Loc Qty

## Loc Code

MAT	206.2467	
117431	206.2467	
MAT018	142.2467	
117324	68.7667	
117340	73.48	
MAT019	4.5	
115338	4.5	

117431

(18)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 69586
Description: Window		Part Number: D3290-3
Inspection Dwg: D3290	Rev: C	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

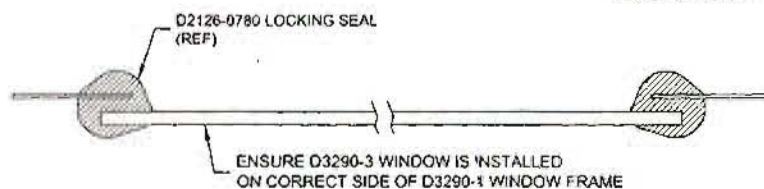
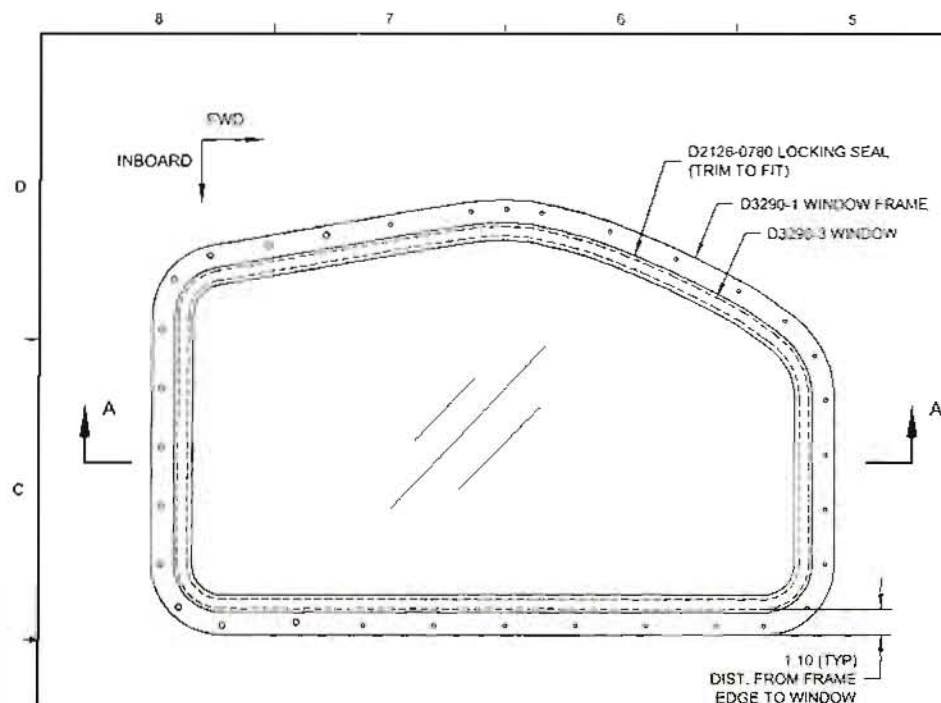
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
26.58	+/-0.030	26.58	✓		T HB01	
16.08	+/-0.030	16.08	✓		T	
13.79	+/-0.030	13.79	✓		T	
12.40	+/-0.030	12.40	✓		T	
8.81	+/-0.030	8.81	✓		T	

Measured by: MB	Audited by: S	Prototype Approval:	N/A
Date: 11-5-12	Date: 11/5/12	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.01.16	New Issue	KJ/EC/DD	AS





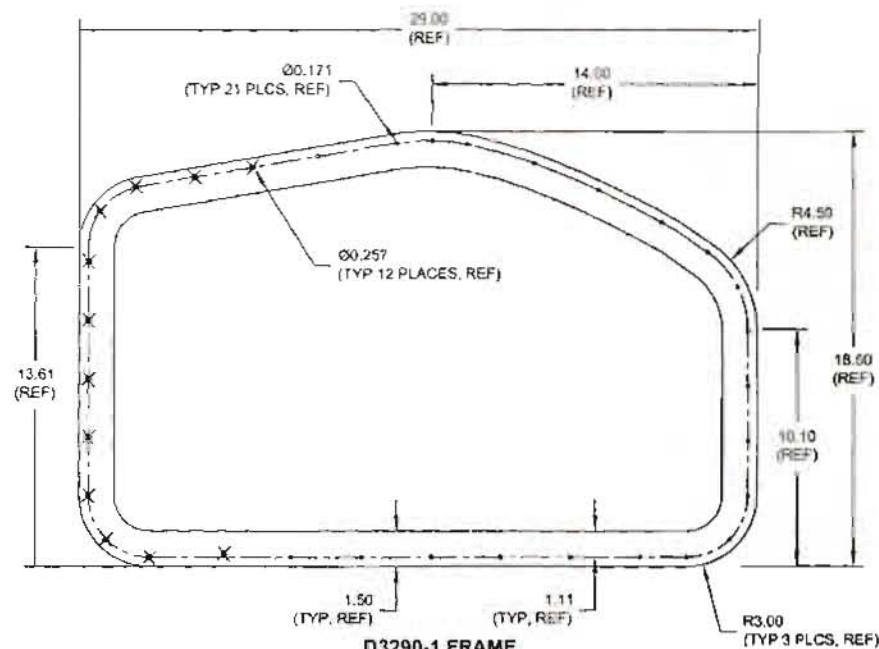
SECTION A-A  
NTS

### D3290-041 REPLACEMENT WINDOW ASSEMBLY

**D3290-041 NOTES:**  
1) WEIGHT: 3.60 LBS

**GENERAL NOTES:**

- 1) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) UNITS: INCHES UNLESS OTHERWISE NOTED



**D3290-1 FRAME**

**D3290-1 NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK  
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027  
(REF. DART SPEC. M6061T6S.040)  
OR  
5052-H32 ALUMINUM SHEET 0.040 THICK  
PER AMS-QQ-A-250/8 OR AMS 4016  
(REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1  
POWDER COAT WHITE (REF. 4.5.3.1) PER DART QSI 005 4.3
- 3) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 4) IDENTIFICATION: IDENTIFY WITH DART PIN "D3290-1" USING FINE POINT PERMANENT INK MARKER
- 5) WEIGHT: 0.47 LBS

**RELEASED**  
07.07.24

**DEO ATTACHED**

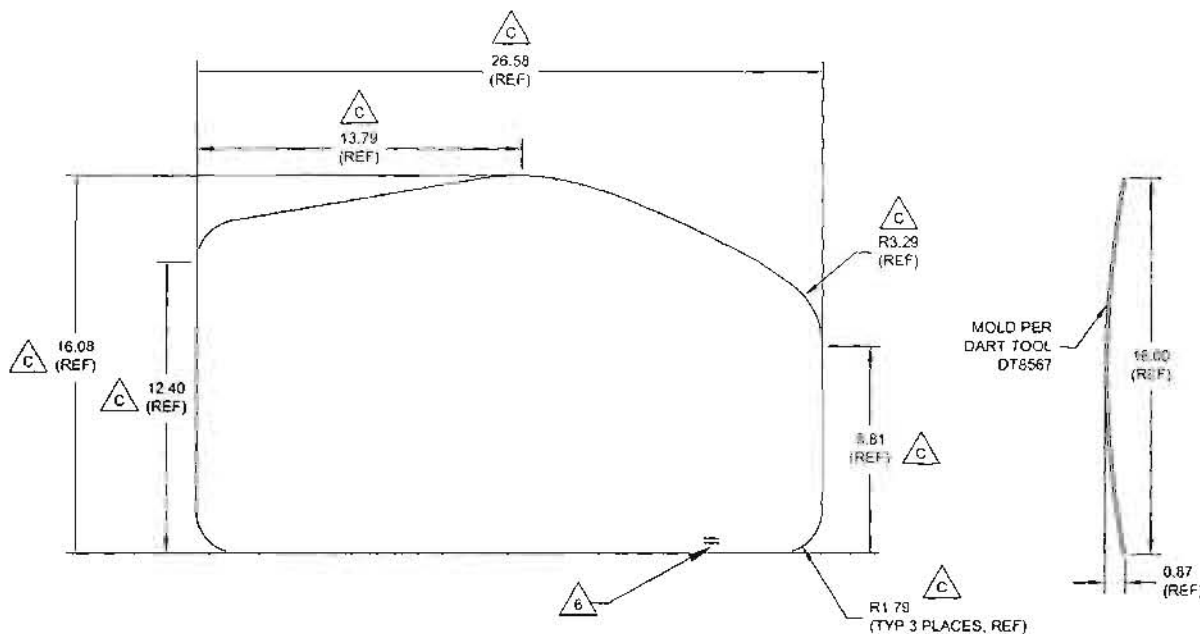
**UNDER REVIEW**

409-01-18  
MTC 07-05-1  
64/10/19

IC	UPDATE DIMS PER PAR 188	DC	07.07.24
SB	UPDATE MATERIAL PER NCR 029	MB	08.04.20
A	NEW ISSUE	RF	04.06.14
REV	DESCRIPTION	BT	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. C3290 SHEET 1 OF 2 TITLE: REPLACEMENT WINDOW ASSEMBLY SCALE: 1:1 COPYRIGHT © 2004 BY DART AEROSPACE LTD ALL RIGHTS RESERVED. THIS DRAWING IS UNCLASSIFIED AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	
DRAWN	PC		
CHECKED	PC		
MFG. APPR.	PC		
APPROVED	PC		
DE APPR		DATE 07.07.24	







**D3290-3 WINDOW**

**D3290-3 NOTES:**

- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425 OR PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C, 0.125 THICK (REF, DART SPEC. M-ACRYLIC-S.125)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) REMOVE SHARP EDGES
- 6) IDENTIFICATION: ENGRAVE PIN "D3290-3" AND B/N ON LOWER EDGE USE 0.125" HIGH LETTERS TO MAXIMUM DEPTH OF 0.055"
- 7) WEIGHT: 1.87 +/- 0.42 LBS
- 8) MOLD PER DART TOOL DT8567

**UNDER REVIEW**

**DEO ATTACHED  
RELEASED**  
07.07.24

DESIGN	74	<b>DART AEROSPACE LTD</b>	
DRAWN	74	HAWKESBURY, ONTARIO, CANADA	
CHECKED	74	DRAWING NO.	REV. C
MFG. APPR.	74	D3290	SHEET 2 OF 2
APPROVED	74	TITLE	SCALE
DE APPR.	74	REPLACEMENT WINDOW ASSEMBLY	1:5
DATE	07.07.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD	



DRAWING NO. D3290	TITLE REPLACEMENT WINDOW ASSEMBLY	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3290-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>q</i>	CHECKED <i>15</i>	MFG. APPR. <i>EZ</i>	APPROVED <i>MP</i>		DE APPR. <i>#</i>		
DATE 09.09.18	DATE 09.09.18	DATE 09.09.18	DATE 09/09/21		DATE 09/09/21		

**PURPOSE:**

CHANGE MATERIAL THICKNESS OF D3290-1 FRAME TO 0.063 FROM 0.040. REF PAR 09-033.

**CHANGE:**

MATERIAL CALL-OUT OF D3290-1 FRAME ON SHEET 1 IS AMENDED AS FOLLOWS:

**D3290-1 NOTES**

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)  
 PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027  
~~(REF. DART SPEC. M6061T6S.040)~~ REF. DART SPEC. M6061T6S.063 (REPLACE)  
 OR  
 5052-H32 ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)  
 PER AMS-QQ-A-250/8 OR AMS 4016  
~~(REF. DART SPEC. M5052H32S.040)~~ REF. DART SPEC. M5052H32S.063 (REPLACE)

**RELEASED**  
 2009 -10- 09

*MP*  
*69/18*

COPYRIGHT © 2009 BY DART AEROSPACE LTD  
 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS  
 NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT  
 WRITTEN PERMISSION FROM DART AEROSPACE LTD

